

Only 8% of all Kentucky's at-risk children under age 6 receive a blood lead test

Lead remains the number one preventable environmental health risk for children despite the regulations limiting lead additives in gasoline and house paint. Although lead has been eliminated from house paint in this country, lead based paint hazards in older homes remain a primary source of high dosage lead exposure for preschool aged children according to the Center for Disease Control's (CDC) *Lead Poisoning in Young Children*. Atlanta, GA: US Department of Health and Human Services; 2005.

Effects of Lead Poisoning

Children exposed to even low levels of lead can suffer from health impairments including the following:

- Developmental delay and decreased IQ
- Attention Deficit Disorder (ADD)
- Decreased bone and muscle growth
- Damage to nervous system, kidneys, or hearing
- Speech and language delays
- Seizures, unconsciousness and even death at extremely high levels

Lead Sources

The primary sources of lead exposure are:

- Deteriorated paint which causes interior and exterior lead dust
- Soil
- Water

Other lead sources can include:

- Costume jewelry
- Clothing or shoes from a parents workplace
- Fishing sinkers, bullets and other hobbies
- Toys

Since 2007, over 15 million toys have been recalled because they exceed the Consumer Product Safety Commission's standards for lead in paint. These toys pose the greatest hazard to young children who might mouth or chew objects. Since lead paint can deteriorate over time posing a greater risk, parents should use caution when buying toys second hand. Any recalled toys should be returned to the store of purchase to be disposed of properly. To check for recent recalls or an archived list please visit the website at www.cpsc.gov.

Blood Lead Screening is required for children receiving Medicaid Services. Pursuant to KAR 1:034, the Early Periodic Screening, Diagnosis and Treatment (EPSDT) health assessment must include laboratory procedures appropriate for age and population groups, including blood lead screening, test recipients at ages 12 and 24 months or any time less than 72 months if not previously tested. This is covered under Preventive Fee Schedule code 83655

The Kentucky Department for Public Health provides assistance for health care practitioners in screening children for blood lead levels. For more information regarding reporting elevated blood lead levels or environmental services please contact your local health department or the Childhood Lead Poisoning Prevention Program (CLPPP) at 502.564.2154 ext 3859.

Medicaid/KCHIP regulations include a blood lead testing component to address the greater likelihood of lead exposure for low income children. The Centers for Disease Control and Prevention (CDC) suggests that states develop a plan to target children who are at risk for lead poisoning. The American Academy of Pediatrics (AAP) recommends that pediatricians provide lead targeted screening to non-Medicaid enrolled children (*Pediatrics*. 2005;116:1036-1046).

The guidelines for Kentucky lead screening include:

Non-Medicaid children who live in high risk targeted zip code areas should be considered at risk and receive a blood lead test (See Kentucky's Screening Guidelines and Verbal Risk Assessment at putthelidonlead.org).

Non-Medicaid children not living in a targeted area should be given a Verbal Lead Risk Assessment. AAP recommends that pediatricians periodically use community specific risk assessment questionnaires to assess risk between the ages of six months and six years (*Pediatrics*. 2005;116:1036-1046). **If an answer of "yes" or "don't know" is given, a blood lead test is needed.**

Reporting Law

Pursuant to KRS 211.902 all blood lead tests performed in Kentucky resulting in a level of 2.3µg/dL or greater should be reported electronically to the Childhood Lead Poisoning Prevention Program. This includes tests performed using the LeadCare II machine. To obtain reporting instructions and an electronic reporting form, go to www.putthelidonlead.org.

Lead and Pregnancy

CDC has provided national guidelines on lead testing for prenatal patients, "Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women". These guidelines can be linked at: <http://www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf> According to the 2006 *Pediatrics* article, "Screening for Elevated Lead Levels in Childhood and Pregnancy", maternal lead levels as low as 5µg/dL may result in adverse pregnancy outcomes, including spontaneous abortion, premature birth, stillbirth, birth defects and decreased intellect and/or behavioral problems in the infant. (*Pediatrics*. 2006;118:1867-1895).

Recommendations for blood lead screening pregnant women:

- At-risk evaluations should occur at the initial prenatal visit or positive pregnancy test visit. At-risk includes targeted zip code areas and positive responses on the Verbal Lead Risk Assessments.
- At-risk prenatal patients should be blood lead tested.
- Medicaid reimburses prenatal blood lead testing for those enrolled
- If an elevated blood lead level is identified, pregnant women should be counseled on calcium supplementation and proper nutrition to minimize the release of lead from bone stores; in addition, assessment and modifications to her home or working environment could be used to minimize further exposure.

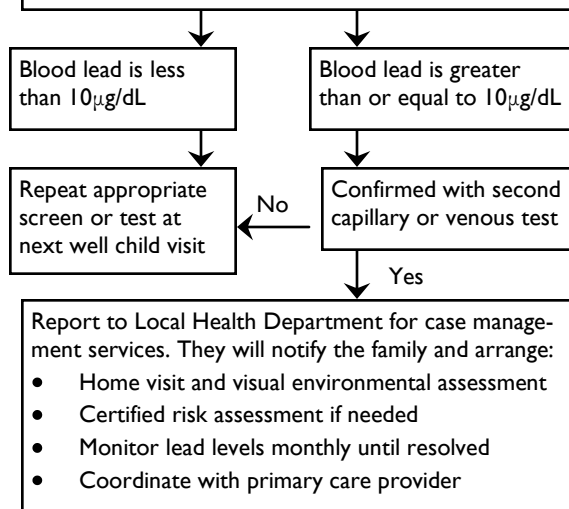


Kentucky's Lead Screening Guidelines

Well child exam <72 months.

Blood lead test at 12 & 24 months for all at-risk patients and anytime there is no documented blood lead test. **At-risk** patients include:

- **Medicaid**
- Lives in **targeted zip code**,
- Positive or 'Don't know' response on Verbal Lead Risk Assessment Questionnaire



Suggested Verbal Lead Risk Assessment Questions

CDC recommends that documentation should be made in the child's medical record at each preventive visit noting: that the assessment was done, any positive responses and any action taken.

Answers of "don't know" should be taken as positive and blood screening performed if one or more answers are positive.

1. Does the child live in or visit a building built before 1978 with peeling or chipping paint or with recent or ongoing remodeling?
2. Does the child have a brother/sister or playmate that has or has had lead poisoning?
3. Do you or a family member work on a farm; on a bridge, tunnel or high construction area; with batteries, ammunition or visit a firing range?
4. Do you use any folk remedies that may contain lead or use pottery or ceramic ware for cooking, eating or drinking?

Follow-up Blood Lead Testing for at-risk populations

* BLL's $\geq 10\mu\text{g/dL}$ need to be referred to the local health department (LHD) for case management (CM) services

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| BLL 1-9µg/dL | Repeat blood lead level (BLL) annually; provide routine at-risk blood lead testing, review verbal risk assessment at next preventive visit, provide lead poisoning prevention education |
| BLL 10-14µg/dL | Repeat BLL in 12 weeks, *report 2nd BLL in this range to LHD for CM |
| BLL $\geq 15\mu\text{g/dL}$: | Lead Poisoning Venous confirmatory test ; Repeat BLL in 1-2 months, *report to LHD for CM |
| * All BLL's $>25\mu\text{g/dL}$ | Please consult with a lead specialist for medical evaluation guidance, * report to LHD for CM |
| •* BLL's $>45\mu\text{g/dL}$ | Venous confirmation immediately; consult a lead specialist for chelation guidance; * report to LHD for CM |

For more information regarding lead poisoning and lead screening guidelines, please visit the following web-sites:

Center for Medicare and Medicaid Services

http://www.cms.hhs.gov/medicaidearlyperiodicscrn/02_benefits.asp

American Academy of Pediatrics

<http://aappolicy.aappublications.org/cgi/reprint/pediatrics.116/4/1036.pdf>

Centers for Disease Control and Prevention

<http://www.cdc.gov/nceh/lead/default.htm>

Consumer Product Safety Commission

<http://www.cpsc.gov>

Childhood Lead Poisoning Prevention Program

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www.putthelidonlead.org



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Kentucky's Childhood Lead Poisoning Prevention Program's (CLPPP)

Blood Lead Screening Guidelines and Recommendations for Physicians



Childhood Lead Poisoning Prevention Program (CLPPP)

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